Adverse Resource Impact Mitigation Framework

1. As authorized by section _____of the act, the department may impose conditions on a permit if the conditions are so designed to remove an Adverse Resource Impact to the characteristic fish populations, to mitigate the impact of a water withdrawal, or to otherwise improve stream hydrology.

2. The department shall consider mitigation if the following conditions are met:
    a) An Adverse Resource Impacts is otherwise permittable under section _____.
    b) No feasible and prudent alternative to avoid an Adverse Resource Impact exists.
    c) An Applicant has used all practical means to minimize an Adverse Resource Impact to streamflow and to characteristic fish populations. This may include the permanent protection of stream segments and other factors related to the maintenance of stream hydrological flow on the site not directly affected by the proposed activity.

3. The Department shall require mitigation as a condition of a permit issued under part _____of the act, except as follows:
    a) The department may waive the mitigation condition if either of the following provisions applies.
        1. The permitted impact is less than _____and no reasonable opportunity for mitigation exists.
        2. The basic purpose of the permitted activity is to create or restore stream hydrology or to increase or improve fisheries-related habitat.
    b) If a water withdrawal activity is undertaken after a documented use of the Assessment Tool and that the Groundwater Assessment Tool indicated that there is no likelihood of an Adverse Resource Impact then mitigation shall not be required at the time of the withdrawal or in the future.

4. The department may require mitigation to compensate for unavoidable Adverse Resource Impact permitted under part _____of the act utilizing one or more of the following methods:
    a) The preservation of existing stream reach(s), or portions thereof. The preservation of existing stream reaches may be considered as mitigation only if the department determines that all of the following conditions are met:
        1. The stream reach(s) to be preserved perform exceptional physical or biological functions that are essential to the preservation of the natural resources of the state or the stream reaches are an ecological type that is rare or endangered.
        2. The stream reach(s) to be preserved are under a demonstrable threat of loss or substantial degradation due to human activities that are not under the control of the applicant and that are not otherwise restricted by state law.

3. The preservation of the stream reach(s) as mitigation will ensure the permanent protection of the stream reach(s) that would otherwise be lost or substantially degraded.

b) The restoration of materially degraded stream reaches.

5. Mitigation shall not be considered for potential adverse resource impacts to the characteristic fish populations within the following ecological systems.
   a) Globally rare or imperiled systems ranking a G1, G2 0r G3 ranking and an S1 or S2 State Rank based on the State's Natural Heritage Ranking System.1
   b) Lake or stream habitat directly associated with State or Federally listed threatened or endangered species but not including special concern species.
   c) Bog or Fen Communities
   d)

6. The restoration of a materially degraded or channellized stream reach is preferred over the restoration of less degraded stream reach. However the restoration or augmentation of a less degraded stream reach may also be permitted. Enhancement of existing stream reaches, regardless of their initial condition or state shall be considered mitigation. In this Part, Stream Restoration means the reestablishment or enhancement of the hydrological characteristics and functions of an applicable stream reach, including the restoration of characteristic fish populations at a site where they have ceased to exist through the degradation of habitat or stream flow (hydrology).

7. An applicant shall submit a mitigation plan when requested by the department. The department may incorporate all or part of the proposed mitigation plan as permit conditions. The mitigation plan shall include all of the following elements:
   a) A statement of mitigation goals and objectives, including the stream segments to be restored or preserved.
   b) Information regarding the mitigation site location and ownership.
   c) A site development plan.
   d) A description of current (baseline) conditions at the proposed mitigation site, including a vicinity map showing all existing rivers, lakes, and streams and wetlands and wells (to the extent known) including the delineation of existing surface waters and wetlands within the proposed mitigation area.
   e) Performance standards to evaluate the mitigation..
   f) A monitoring plan.
   g) A schedule for completion of the mitigation.
   h) Provisions for the management and long-term protection of the site. The department shall, when requested by the applicant, meet with the applicant to review the applicant's mitigation plan.

8. Mitigation shall meet the following criteria:

a) Mitigation shall be provided on-site where it is practical to mitigate on-site and where it is beneficial to the characteristic (or other target???) fish populations.
b) If subdivision (a) does not apply, than an applicant shall provide mitigation in the vicinity of the permitted activity if practical and beneficial to the characteristic (or target???) fish populations. "Vicinity" in this context means within the same major watershed as the location of the proposed project or within a watershed of similar ecological characteristics. A watershed (also termed a catchment) refers to a drainage area in which the permitted activity occurs where it may be possible to restore certain wetland functions, including hydrologic, water quality, and aquatic habitat functions.
c) Mitigation shall be on-site or in the vicinity of the permitted activity unless the department determines that subdivisions (a) and (b) of this subrule are infeasible and impractical.
d) Mitigation shall be of a similar ecological type as the impacted wetland where feasible and practical..

NOTE:

1. The GWCAC should first determine the "trigger" level(s) for adverse impacts (the habitat factor). To date, MDEQ has been using ".2". It is the GWCAS responsibility to determine that "trigger".

2. Beyond determining the "trigger" level – the GWCAC also needs to determine what are acceptable levels of impact and what are the options for mitigation. It is possible to determine different bands of impact at different "trigger" levels. An example would be mitigation opportunities and mitigation options at bands with "triggers" of .2/ .3/ .4/ and .5. As the "trigger" level increases the requirements for mitigation could be more rigorous.

   SEE ATTACHED GRAPHIC

3. A possible list of mitigation activities could include:
   a) Adjustable structures, fixed controls (outlets to berms) to beneficially maintain water levels and or lengthen the hydoperiods in wetlands, lakes and streams;
   b) Installation of Michigan native plants appropriate to ecological systems to increase diversity and/or provide habitat to specific fauna and flora;
   c) Installation of in stream regulators which increase water turbulence and thereby increases dissolved oxygen levels in the waters;
   d) Installation of in stream morphometry to accommodate flow conditions resulting from land use changes (Many streams in Michigan have been down cut and have eroding, unstable banks which produce sediment fans and bars, restoration art and science can be brought to bear on restore streams morphometry, which will improve water quality.) and
   e) Sediment trapping and removal

This is not an all inclusive list: it is simply illustrative of what could be done. We need to determine this represtative or illustrative list.

4. Procedures for an application of a potential mitigation program.

Eligibility:
The program would need to make a finding that a withdrawal will cause an adverse resource impact. Secondly, if the adverse resource impact occurred on a stream reach on which there are multiple users, the applicant would be encouraged to identify remedies related to effectuating changes by all users on the stream reach so as to avoid the likely adverse resource impacts.

Identity:
An applicant that qualified based on the conditions set forth above would be required to go through the following three step process.

- Step 1 –Applicant to show that there is no prudent or feasible alternative to the project, including no action, other locations, and conservation measures to the project. This step would include a thorough assessment of alternatives considered.

- Step 2 –If the applicant is successful in demonstrating no feasible and prudent alternative they would be required to get a site specific permit pursuant to section 32723.

- Step 3 –If the applicant proves or established step one and two, a process would be undertaken to determine the nature of mitigation requirements required by the project.

9. Except where mitigation is to occur on state or federally owned property or where the mitigation is to occur in the same municipality where the project is proposed, the department shall give notice to the municipality where the proposed mitigation site is located and shall provide an opportunity to comment in writing to the department on the proposed mitigation plan before a mitigation plan is approved by the department

10. An Applicant shall complete mitigation activities before initiating other permitted activities, unless a concurrent schedule is agreed upon between the department and the applicant, and an adequate financial assurance mechanism is provided by the applicant.

11. The department shall require financial assurances to ensure that mitigation is accomplished as specified and that the mitigation be effective for the length of time required to mitigate an adverse resource impact.

12. Mitigation may be suspended or eliminated if the cause of the adverse resource impact be suspended or eliminated such as the cessation of groundwater pumping.
    a. Mitigation for a temporary adverse resource impact shall be considered and evaluated as a temporary mitigatative measure.
    b. Mitigation for a permanent adverse resource impact shall be considered and

evaluated as a permanent mitigatative measure.

13. An applicant shall provide for the protection of the mitigation area by either a temporary or permanent conservation easement or similarly protective instrument that provides for the protection of the natural resource functions and values of the mitigation site.